AMPHIPODS OF THE FAMILY AMPELISCIDAE (GAMMARIDEA). VI. AMPELISCA MACRODONTA, A NEW SPECIES FROM THE FALKLAND ISLANDS

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Abstract.—An unusual new ampeliscid amphipod, Ampelisca macrodonta, is described from the Falkland Islands. It is characterized by a series of small spines on the posterior margin of the basis of pereopod 7 and a very large tooth on the posterior corner of epimeral plate 3. The proposed new marine amphipod was collected in 3–9 meters of water over mud and broken shell bottoms.

Ampelisca macrodonta, new species Figs. 1, 2

Material examined.—HOLOTYPE (16.2 mm), USNM 216638, 23 Feb 1927, 3–9 m, Port Stanley, Falkland Islands, boat dredge over mud and broken shell bottom, coll. W. L. Schmitt; PARATYPE (9.2 mm), USNM 216639, 2 Apr 1927, Teal Inlet, East Falkland Islands, coll. W. L. Schmitt.

Diagnosis. - Moderate sized, lower front margin of head deeply excavate, head 2½ body segments long, with 2 pairs of corneal lenses. Antenna I extending beyond end of antenna II peduncular segment 5; peduncular segments ratio 100:150:70, first segment tumid, antenna I flagellum with 13 segments, setae moderate in length. Antenna II peduncular segments 4 and 5 length ratio 100:60, flagellum ²/₃ body length, with 20 segments, setae moderate in length. Mandible heavily sclerotized, 11 rakers, left with 4 teeth on lacinia mobilis, 6 teeth on incisor, palp segment 2 slightly curved, heavily setose, palp segment 3 3/4 length of segment 2 with 5 scattered and 3 apical setae. Maxilla 2, upper lip, and lower lip without diagnostic features. Maxilliped inner plate with 2 setal spines and 2 chisel-shaped spines distally and submarginal row of plumose setae; outer plate with 13 chisel-shaped spines and 3 distal plumose setae; palp normal. Maxilla 1 inner plate with 2 apical setae; outer plate with 11 distal spines; palp with 6 distal spines and 11 distal facial setal

spines. Coxa 1 with well developed posteroventral notch, coxa 2 with slit, coxae 3 and 4 without slit or notch. All gills saclike. Pereopod 1 heavily setose with small dactyl. Pereopod 2 heavily setose, with elongate carpus. Pereopods 3 and 4 very similar but with 4 slightly more massive. Merus of pereopod 3 with setae of posterior margin on distal ½ only; pereopod 4 with margin entirely setose; dactyli of pereopods 3 and 4 longer than combined length of propodus and carpus on respective leg. Pereopod 5, anterior margin of basis rounded, posterior margin weakly biolobate; carpus with 4 anterior spines, posterior submarginal spinules in clusters of 2, 3, and 4, cluster of posterodistal marginal spines; propodus with 2 posterior and 3 distal spines, dactyl with 6 accessory teeth. Pereopod 6, anterior margin of basis bare proximally, 8 distal spines, posterior margin bare; anterior margin of carpus with 6 spines and with anterodistal and posterodistal clusters of spines, 4 sets of submarginal spinules in groups of 1, 2, 4, and 5, propodus with 10 antero- and 3 posteromarginal spines, dactyl with 9 accessory teeth. Pereopod 7, basis inflated, posterodistal margin with small spines, anterior margin slightly concave, ischium short with anterodistal spine, merus with posterodistal setae, antero- and posterodistal margins acuminate, carpus anterodistally acuminate with spine, posterodistally with 3 spines, propodus inflated, dactyl acuminate

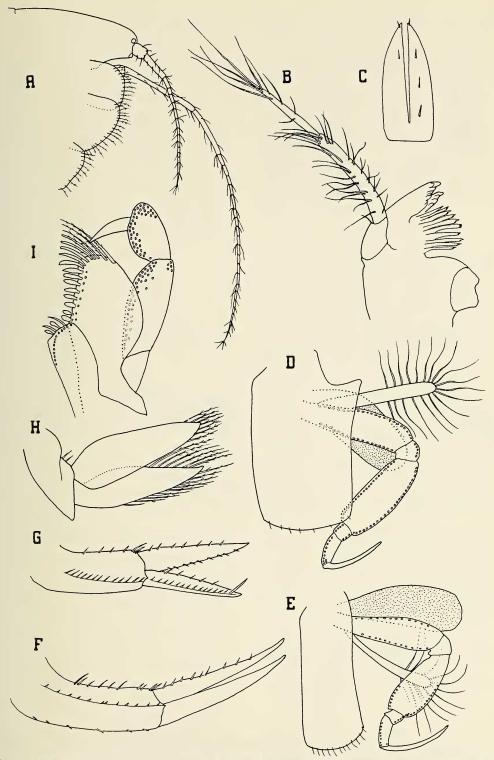


Fig. 1. Ampelisca macrodonta, new species: A, Head; B, Left mandible; C, Telson; D, Pereopod 4; E, Pereopod 3; F, Uropod 1; G, Uropod 2; H, Uropod 3; I, Maxilliped.

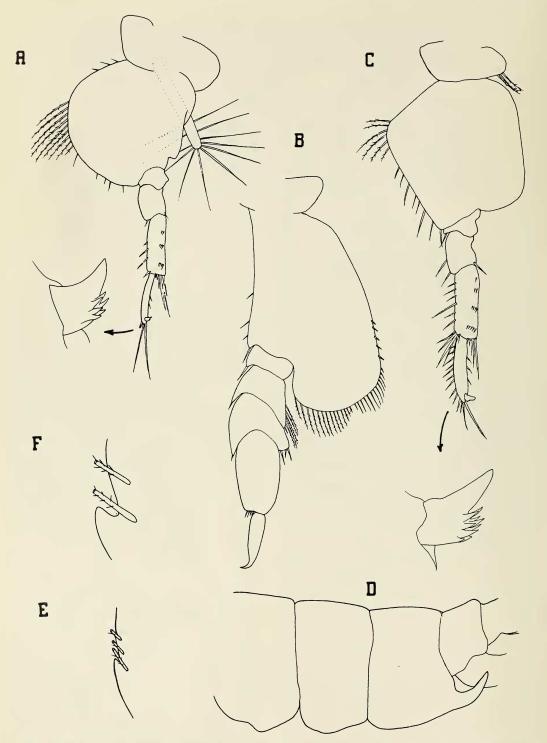


Fig. 2. Ampelisca macrodonta, new species: A, Pereopod 5 and detail of dactyl; B, Pereopod 7; C, Pereopod 6 and detail of dactyl; D, Lateral view of pleosome and urosome; E, Detail of slit or notch of coxa 2; F, Coxa 1.

with apex curved anteriad. Epimeron 1 rounded, ventral margin slightly sinuous with plumose setae; epimeron 2 rounded with ventral plumose setae; epimeron 3 with rounded anterior margin, very strong tooth at posteroventral corner, posterior margin slightly sinuous above tooth. Uropod 1 equal to uropod 2 in length, peduncle spinose, lower margin with facial spinules, outer ramus without dorsal spines but with ventrolateral spinules, inner ramus spinose. Uropod 2 peduncle and rami distally heavily spinose, outer ramus with long distal spine. Uropod 3 rami acuminate with plumose marginal setae. Telson cleft for more than ½ length with few dorsal setal spines.

Male. - Unknown.

Variation.—Little variability is evident in the pair of specimens collected from the Falkland Islands. Differences noted in the setation and number of flagellar articles of the antennae are minor and due to differences in maturity.

Etymology.—The specific name macrodonta, derived from the Greek "makros" (large) and "odous" (stem odont-) (tooth), refers to the very large tooth of the 3rd epimeral plate.

Remarks. - Ampelisca macrodonta is described from an area where seven species of Ampelisca have been recognized. Four of these seven species known from the extreme southern reaches of South America and Antarctica possess characteristics of the seventh leg similar to A. macrodonta. Ampelisca barnardi Nicholls, 1938, A. hemicryptops K. H. Barnard, 1930, A. richardsoni Karaman, 1975, and A. statensis K. H. Barnard, 1932, differ from A. macrodonta by the notch in the anterior margin of segment 4 of pereopod 7 (absent in A. macrodonta) and the small size of the posterior process of epimeral plate 3 (very large in A. macrodonta). Ampelisca macrodonta may be separated from A. bouvieri Chevreux, 1913, A. composita Schellenberg, 1931, and A. anversensis Karaman, 1975, by the deeply concave lower margin of the head and

broader outer ramus of uropod 3 of A. macrodonta.

An interesting aspect of A. macrodonta is the presence of small spines on the postero-distal margin of the basis of pereopod 7. This author is aware of only two additional species which possess this feature. This pair of undescribed species has been found in the western Atlantic and the Gulf of Mexico and differs from A. macrodonta by a stronger superior lobe and much weaker posteroventral tooth on the third epimeral plate (Goeke, unpublished data).

Acknowledgments

The author would like to express his gratitude to the staff of the National Museum of Natural History for their kindness and help during a recent visit to Washington. Thanks are also extended to Richard W. Heard, Jr., Gulf Coast Research Laboratory, for his support and for a critical reading of the manuscript.

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